

Before The  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

ORIGINAL  
FILE  
RECEIVED

JAN 23 1989

Federal Communications Commission  
Office of the Secretary

In the Matter of )  
 )  
Advanced Television Systems )  
and Their Impact on the ) MM Docket No. 87-268  
Existing Television Broadcast )  
Service )

REPLY COMMENTS OF MST

The Association of Maximum Service Telecasters, Inc. ("MST") hereby submits its reply comments to the Tentative Decisions and Further Notice of Inquiry ("Further Notice") on advanced television (ATV).

In the initial comments to the Further Notice, all segments of the television industry declared their strong commitment to ATV and identified areas of broad agreement about its basic direction. The Commission deserves a great deal of credit for encouraging this degree of enthusiasm and consensus. The Commission must now build on this foundation by affirming its support of the consensus, focusing its efforts more sharply on the remaining questions and taking an active role in encouraging and coordinating continued progress. Establishment of an ATV Task Force within the Commission would mobilize the resources necessary to advance toward this goal.

0-#9

**I. The Commission Should Reaffirm The Basic Framework Of Terrestrial Broadcast ATV.**

The initial comments on the Further Notice reflect virtually universal agreement on many of the Commission's tentative decisions and related issues that set the direction for future development. Most fundamentally, there is no question that it is in the public interest to provide terrestrial ATV service through the existing system of local broadcasters. Just as important, service to NTSC sets must be continued during the transition to ATV, either by simulcasting or by use of a compatible system.

The comments also are in agreement that a single transmission standard should be adopted for terrestrial broadcast. This standard should be based on industry consensus after adequate testing and evaluation of the proposed systems -- tasks that broadcasters are prosecuting with zeal, expedition and thoroughness. While it is still too soon to endorse a particular standard, an early, firm declaration by the Commission that a unified standard will ultimately be selected will promote cooperation from the outset and discourage destructive strategic behavior.

The consensus among the commenters (with the exception of land mobile interests) is that additional spectrum will be necessary at some point in order to achieve true high-definition quality while protecting NTSC service. The comments also agree with studies showing that even under the most optimistic assumptions, there is barely enough spectrum available in the

broadcast bands<sup>1</sup> to accommodate ATV service, especially in the largest urban areas.

Therefore, in order to preserve the potential for full broadcast HDTV, it is essential for the Commission to maintain its current TV application freeze and indefinitely suspend any TV/land mobile sharing plans. MST recommends that the Commission terminate the sharing proceeding in Docket 85-172. This will end the delay and uncertainty that result from constantly revisiting this issue and that harm both the television and land mobile services.

## **II. The Commission Should Focus Its Efforts On Obtaining The Fundamental Information Necessary For Future Decisions.**

Although it is essential to lay the fundamental groundwork for further ATV development, as discussed above, many basic decisions must await the availability of more information. Such matters as production standards,<sup>2</sup> specific allotment plans and methods, flexible use and negotiated service areas, and the relative merits (in the abstract) of full compatibility, simulcast and augmentation cannot properly be resolved until

---

<sup>1</sup>The Commission is reluctant to use frequencies above 1 GHz for ATV, and MST agrees that these higher bands should be avoided, if possible (although we believe it is too early to rule them out).

<sup>2</sup>MST does not support or oppose any particular production standard or standards at this time. This issue need not be decided now and should not be allowed to distract the Commission from the preeminent question of the transmission standard.

this information is developed and commented upon. Fortunately, the process of testing and data-gathering has begun and the necessary information will be available in the near term.

Broad questions about the ultimate structure of ATV or about the preferences and predictions of the interested parties should be put aside for the immediate future. Instead, the Commission should concentrate on more sharply defined inquiries to elicit the underlying facts. Broadcasters have already begun collecting the kind of hard data that are essential to informed decisions about broadcast ATV. For example, the Advanced Television Test Center has launched an extensive and expedited effort to determine the performance of specific systems, the perceptions and attitudes of viewers, and the basic propagation characteristics of various transmission methods. There is much more work of this kind to be done, and the Commission can play an important part.

Spectrum studies must be continued and refined. For example, the effects of various taboos should be determined, especially the image taboo and any others that prove difficult to overcome and may continue to restrict allotment options. The studies should also examine alternative algorithms that might produce more efficient allotment plans in the Northeast and other congested urban areas. In addition, statistical analyses of the hypothetical coverage areas that would result from different desired/undesired signal ratios would assist the Commission and others in weighing alternative allocation schemes against the public interest.

The characteristics of both ATV and NTSC receivers also deserve careful consideration. As the All-Channel Receiver Act demonstrated, government leadership in setting equipment standards can yield significant benefits to the public. Improvements in receiver design could increase resistance to interference from certain UHF taboo channels, greatly increasing the density of spectrum usage. The Commission should determine which taboos can be modified or eliminated and develop a timetable for introducing improved receivers. Open Architecture Receivers also should be investigated to resolve conflicting claims about their cost and complexity as well as their effectiveness. These characteristics should be compared to those of multipoint and dedicated receiver designs.

Advisory Committee working groups should be instructed to address these subjects promptly so that more detailed plans for accomplishing these tasks can be formulated.<sup>3</sup> The Commission should also strongly urge system producers to ready their equipment in hardware form promptly for testing. Already there are signs that possible delays in the testing process will result from the reluctance or inability of system proponents to "sign off" on their hardware for testing, rather than from lack of readiness on the part of the Test Center or other testing facilities.

---

<sup>3</sup>MST believes the work of the Advisory Committee has been extremely valuable. The Commission should extend the Committee's life.

**III. The Commission Should Establish An Internal ATV Task Force And Take A More Active Role In Planning and Implementation Of ATV By Terrestrial Broadcasters.**

The time has now come for the Commission to be more deeply involved in ATV developments and issues. The study, analysis and decisions that must be undertaken in the months ahead will be difficult, but they are crucial to the future of the public's television service.

In order to overcome the budget constraints that have prevented the Commission from devoting the resources necessary to meet the HDTV challenge, MST believes the FCC should seek a supplemental appropriation to fund the work of a special internal ATV Task Force at the Commission, modeled on the UHF comparability task force. See Improvements to UHF Television Reception, Docket No. 78-391. The appropriation would restore some of the technical capabilities that have been reduced by recent budget cuts and allow the Commission to fill the active role it should play in the development of ATV. MST plans to propose such an appropriation in its February 1, 1989, submission to Chairman Markey.

An ATV Task Force could bring together the technical, economic and regulatory aspects of this proceeding and coordinate planning for implementation of ATV by terrestrial broadcasters. In addition to conducting or arranging the spectrum and receiver studies discussed in Section II, above, the Commission should play a greater role (technical and otherwise) in the activities of the Advisory Committee and its working groups. The Commission should also furnish assistance

and guidance to the Test Center and similar groups to insure that the resulting data are as useful as possible. The Task Force could also coordinate activities with other government agencies, and other nations. It would be useful for the Task Force to report annually to the Commission and Congress on the status of ATV technology and recommendations for legislative or other action.

**IV. The Broadcast Transmission Standard Should Not Be Subordinated To The Requirements Of Other Media.**

This proceeding and the Commission's Advisory Committee activities have focused on local television not only because local broadcasters face the unique regulatory constraint of government-imposed 6-MHz channels but also because of the preeminence of local-station service among consumers. Local stations reach 98% of the public and offer their service to all consumers free of charge. Over 80% of viewing in this country is of local stations. It is through local stations that Americans obtain their community and national news, have access to the political process and are exposed to local, regional and national advertisers.

Even among cable subscribers, more than 70% of the viewing is of over-the-air stations. Broadcasters appreciate the importance of cable carriage, and affirmatively seek an ATV

system that will be cable-friendly.<sup>4</sup> But the primary reliance of the American public on local stations -- a reliance that has been nurtured in accordance with the congressional mandate contained in Section 309(b) of the Communications Act -- must continue to animate the basic framework and priorities of this proceeding and the Commission's overall ATV efforts.

Terrestrial broadcasters do not believe that other media should be restricted in their search for the optimal system for their circumstances. By the same token, however, we do not believe that a suboptimal system should be imposed upon broadcast service in order to accommodate the requirements of other complementary transmission media.

Some in the cable industry apparently wish to be completely unrestrained in their choice of ATV technologies, yet would assume for cable almost a flat veto over any ATV technology that broadcasters might wish to implement. The comments of the National Cable Television Association ("NCTA Comments") state that "the broadcast ATV standard should not dictate the maximum performance level of all other media nor inhibit their ability to tailor ATV to their particular needs." NCTA Comments at 11. But those same comments ask the Commission to "require that the broadcast ATV standard be compatible with cable." NCTA Comments at 4. In setting that broadcast

---

<sup>4</sup>The FCC's Advisory Committee has benefited from the participation of cable representatives in this and other respects.

standard, cable insists that "careful attention needs to be given to minimizing the technical imperfections inherent in the cable transmission facility." NCTA Comments at 9. In other words, cable's technical limitations should be imposed on broadcasters, but not vice versa.

MST agrees that the suitability of broadcast ATV technology for cable carriage must be taken into account. But it is only one of several highly important factors. And cable must be willing to bear some of the burden of achieving interoperability. If the best system for the public served by local broadcasters would require cable systems to expand their capacity or otherwise upgrade some of their facilities, that may be a cost required in the public interest. It is not unlike the much larger cost that local broadcasters will have to incur to provide their communities with high-quality ATV service. Broadcasters should not be forced to accept inferior quality just to allow cable, for example, to save bandwidth for encryption. See NCTA Comments at 9-10. In short, broadcast transmission standards should not be dictated by the cable industry.

We are not asking the Commission to impose a particular transmission standard on cable.<sup>5</sup> "Consumers will be best served if every video medium is allowed to deliver ATV in a

---

<sup>5</sup>However, since the compulsory license deprives broadcasters of any control over the rebroadcast of their signals, it may be necessary to set minimum quality standards to prevent the degradation of broadcast signals on retransmission.

format that is optimal for that medium." NCTA Comments at 10. As a practical matter however, the selection of a broadcast standard may limit cable systems that wish to carry local broadcast programming to a compatible family of transmission standards<sup>6</sup> or to some other easily transcodable system. Representatives of all media regard a high degree of interoperability as an important objective that will benefit viewers and programmers as well as delivery media. The Commission should encourage the kind of cooperation and compromise that will make it possible to achieve this goal.

#### CONCLUSION

The television industry is eager to develop ATV technology and deliver its benefits to the viewing public. By their active support of the Test Center and their active participation in planning for ATV at the FCC and elsewhere, broadcasters have demonstrated their determination to choose a high-quality transmission system and put it into operation as soon as practicable. But the private sector cannot implement HDTV alone. This is especially true of broadcasters, who operate under unique regulatory constraints. As long as government prescribes transmission standards and controls the availability of spectrum, government has a responsibility to facilitate the development and implementation of ATV.

---

<sup>6</sup>Cf. First Report of the NCTA Blue Ribbon Committee on High Definition Television (Nov. 1988) at 8.

The TV industry applauds the actions already taken by the Commission to support HDTV. But if development is to continue at a pace that will allow terrestrial broadcasting to be competitive with other media and the United States to be competitive with other nations, the Commission must be willing and able to take an active role in coordinating and encouraging further progress. MST is convinced that with appropriate leadership from both the public and private sectors, the job can be accomplished and American viewers can fully participate in the benefits of high-quality ATV service.

Respectfully submitted,

THE ASSOCIATION OF MAXIMUM  
SERVICE TELECASTERS



Jonathan D. Blake  
Gregory M. Schmidt  
Martin Wald

Covington & Burling  
1201 Pennsylvania Avenue N.W.  
P.O. Box 7566  
Washington, D.C. 20044  
202-662-6000

Its Attorneys

January 23, 1989